M-DG Seminar:
Multinomial Processing Tree Modeling

Questions & Practice with multiTree

Summer semester 2020

Prof. Dr. Daniel Heck

M-DG: Multinomial Processing Tree Modeling

Part	Date	Topic	Literature
(A) Theory	Self study	A1) Introduction	Erdfelder et al. (2009)
		A2) Basics of MPT modeling	Batchelder & Riefer (1999)
		A3) The software multiTree	Moshagen (2010)
		A4) Hierarchical MPT modeling	Lee (2011) Heck et al. (2018)
(B) Application	15.5.*	B1) Questions & Practice with multiTree	Batchelder & Riefer (1986)
	20.5.*	B2) Workflow: Developing an MPT model	Jung et al. (2019)

* Web-Conference, 12:00 – 15:00, https://webconf.hrz.uni-marburg.de/b/dan-fvk-ha6

Questions & Practice

Overview:

1. Questions
2. Practice with multiTree

1) Questions

Do you have questions about…

- … the basics of MPT modeling?
- … the underlying statistics?
- … the software multiTree?
- … hierarchical modeling?

Questions & Answers
(white screen for drawings)

Questions & Practice

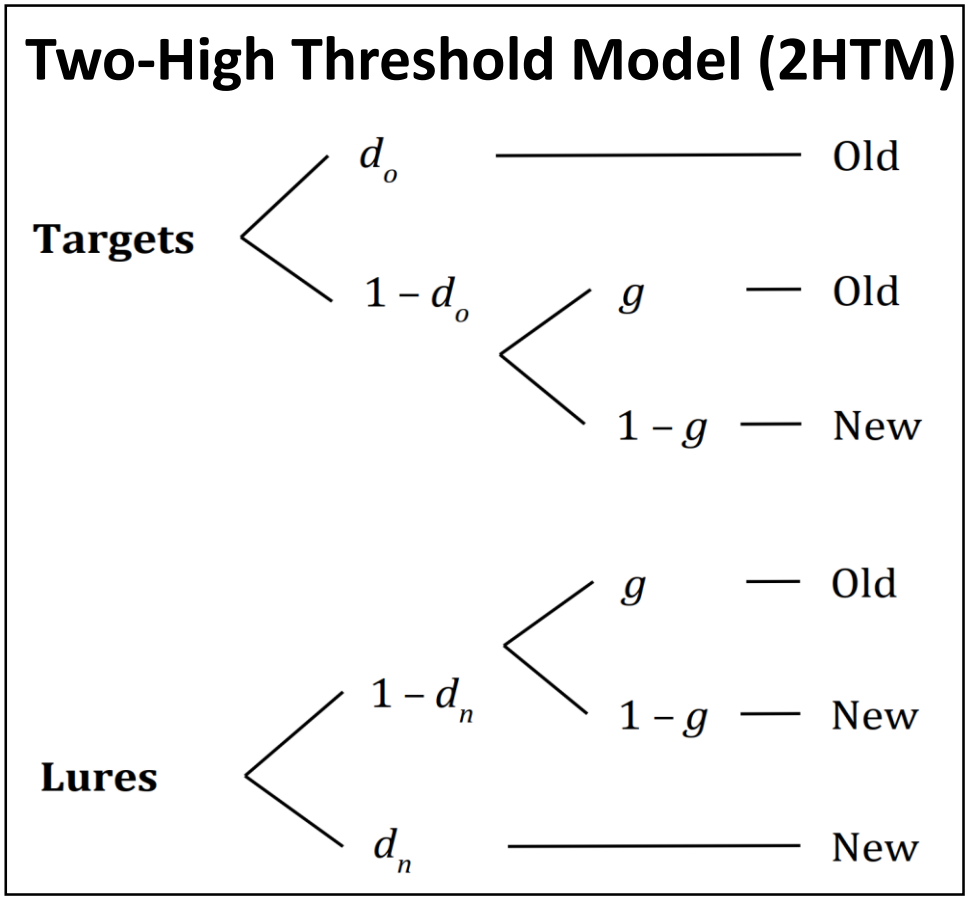
Overview:

1. Questions
2. Practice with multiTree

2) Practice with multiTree

Preliminaries:

1. Open multiTree
2. Open the file "2HTM.mpt"
   (available in the ILIAS folder: "A3 The software multiTree/")
3. The file contains:
   - → Model file
   - → Data
   - → Analysis results



Any questions or issues so far?

2) Practice with multiTree

1. Extend the 2HTM to two base-rate conditions:

		„old“	„new“
30% Targets	Target	65	35
	Lure	13	87
70% Targets	Target	83	17
	Lure	43	57

2. What are the parameters of the extended model?
3. Is the model identifiable with separate d_n and d_o?
4. Fit the model to both conditions jointly.
5. Test whether *g* differs significantly between conditions.

Practice (white screen)

1. Extend the 2HTM to two base-rate conditions
2. What are the parameters of the extended model?
3. Is the model identifiable with separate d_n and d_o?
4. Fit the model to both conditions jointly.
5. Test whether g differs significantly between conditions.